

Remarks

The Office Action contains a single rejection. Claims 14-23, 25, and 26 are rejected under 35 U.S.C. §103(a) as obvious over Iwasaki '863 in view of Douglass '979. Applicants believe that the Examiner, in rejecting those claims, has (a) applied inapposite, non-analogous prior art and (b) engaged in an impermissible use of hindsight.

I. The cited art is inapposite, non-analogous art

The subject matter of the claimed invention is a "signal isolator" as stated clearly in the opening words of claims 14 and 15, which are the only independent claims. The principal reference, Iwasaki, does not relate in any way to signal isolators. It is, by contrast, a "multispark ignition system." Spark ignition systems are utterly and completely irrelevant to signal isolators. An engineer working in the signal isolator art (represented, e.g., by PTO class 327, sub class 333) would not, by the wildest stretch of the imagination, look to spark ignition systems (in class 123!) for design ideas or problem solutions. Spark ignition systems are neither within the signal isolator art nor are they in an "analogous" art.

Iwasaki could only have been found with the benefit of hindsight, guided by Applicants' disclosure and claims.

In 1992, the Court of Appeals for the Federal Circuit held in *in re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992), that the Office commits clear error when it combines non-analogous art with other references to determine the patentability of an Applicant's claims. The Court required, first, that the cited references be in the inventor's "field of endeavor," explicating that the reference could not be considered to be within the inventor's field of endeavor merely because both relate to the same industry; there must be similarity of purpose. Second, it required that the cited reference be in a field reasonably pertinent to the inventor's endeavor, if it be in a different field. That is, the matter with which the reference deals logically must be such

as to have commended itself to an inventor's attention in considering his problem: "Thus, the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve." *Id.* On the facts of the case, the Court concluded that "A person having ordinary skill in the art would not reasonably have expected to solve the problem of dead volume in tanks for storing refined petroleum by considering a reference dealing with plugging underground formation anomalies." 966 F.2d at 659-60, 23 USPQ 2d at 1961. The same principles were applied by the same Court more recently in Wang Laboratories, Inc. v. Mitsubishi Electronics America, Inc., 103 F.3d 1571, 41 USPQ2d 1263 (Fed. Cir. 1997); and Liton Systems, Inc. v. Honeywell, Inc., 87 F.3d 1559, 39 USPQ2d 1321 (Fed. Cir. 1996). In column 2, lines 46-57, Iwasaki states that the objectives of the inventor were to obviate the stated conventional drawbacks of prior art spark ignition systems including the fact that conventional ignition systems could not obtain a series of ignition sparks having any elongated maintain time as well as reduced interval of time between the two independent sparks at the same time. That is getting pretty far field from the claimed invention and the problems and issues addressed by the inventors herein. One would have to conclude, as a matter of law, that an engineer designing signal isolators would not look to Iwasaki for any ideas. Consequently, (1) it is improper to rely upon Iwasaki at all and (2) it is also improper to combine Iwasaki with Douglass inasmuch as they are in different fields and address different problems than the claimed invention.

In determining what prior art is "analogous," one may not use the Applicant's own solution, involving the use of two distinct substrates, as a guidebook for going backwards to identify other circumstances in which two substrates were packaged together and wherein, therefore, it may be observed that something in the genre occurred to another inventor who was dealing with different problems. For these reasons, Douglass also is non-analogous prior art. Douglass relates to making inter-chip connections, not to signal isolation.

Iwasaki and/or Douglass not being available as prior art, the rejection for obviousness must immediately fall and be withdrawn.

II. Combining the References Does Not Produce the Claimed Invention

Though the foregoing is conclusive, for the sake of completeness Applicant wishes to make clear that even if Iwasaki were available as prior art, and even if there were an appropriate teaching (avoiding the use of hindsight) to combine Iwasaki and Douglass (which there is not and which the Office Action does not even purport to provide, in the slightest), the resulting combination would not be the claimed invention.

Turning first to claim 14, it will be seen that the claim defines a signal isolator having a first substrate on which a first passive component is formed, with an isolation layer over the first passive component and a second passive component formed over the isolation layer, both components being coils. Further, there is an input for receiving an input signal and a driver circuit coupled between the input and one of the passive components. The Office Action concedes that Iwasaki does not show a first substrate or a first passive component formed on the substrate or an isolation layer thereover or second passive component formed over the isolation layer, so it turns to Douglass to find these missing limitations. Putting aside for the moment the fact that Douglass does not relate to an isolator and is not combinable with Iwasaki, Douglass does not show, contrary to the Examiner's assertion, a second passive component formed over the isolation layer. The Office Action cites to column 4, line 55 of Douglass for this limitation. That text recites an insulating layer 310 which separates capacitor plates 308 on the upper chip 302 from lower circuit layer 304. The Office Action also cites to column 4, line 55 both for the isolation layer and for the second passive component. For the first passive component, the Office Action cites to the abstract. However, as the abstract makes clear, "When utilizing capacitor plates, chips are arranged face-to-face with opposing chips having mirror image capacitor plate patterns to form a plurality of capacitors." In other words, there is a first capacitor plate on one of the chips (substrates) facing a second capacitor plate on the other chip (substrate). There is, thus, no "second passive component formed over the isolation layer" on the first substrate. *It takes two chips in Douglass to create a capacitor while both of Applicant's passive components are created on top of the same, single substrate.*

Further, of course, in claim 14 the passive components are coils. In claim 15, the passive components are capacitor plates but, again, both capacitor plates are created over the same substrate¹, not on different substrates.

In other words, the Examiner has succumbed to the siren call of hindsight in order to find a basis for combining the references. He does not establish proper motivation to effect the combination and succeeds only in showing that some elements of the claims can be found in unrelated, uncombinable, non-analogous art.

III. The Examiner Interview and Claim Amendments

In a telephone call on August 18, 2003, the undersigned requested that Examiner DeBernadinis explain why he thought Iwasaki should be considered analogous art. Mr. DeBernadinis returned the call on August 29, 2003 and explained, inter alia, his position that Iwasaki involved transmitting a voltage across a transformer, that transformers provide isolation between their windings and that, therefore, in a broad sense he thought he was justified in treating Iwasaki as a "signal isolator" because he would treat the spark-producing waveform as a "signal." Applicant's counsel explained his disagreement and, specifically, that the term "isolater" or "signal isolator" is known in the art to refer to isolation for the purpose of signal information or waveform transfer, spark ignition having nothing to do with information transfer and merely to generating a breakdown voltage. Mr. DeBernadinis then noted that if the claims were amended to recite "information signal isolator", to reflect the understanding in the art and preclude treating a spark ignition waveform as a "signal", he would agree that Iwasaki would not be analogous art (Douglass was not discussed), he would not have to address the corrections of the combination and the rejection would be withdrawn.

Applicants appreciate the Examiner's time and courtesy in the interview.

The words "signal isolator" and "information signal isolator" will be understood in the context of Applicant's disclosure to have precisely the same meaning. The "signal" or "information signal" may be analog or digital, as expounded in the specification, and the claimed isolator may be used as a protection interface between diverse components

¹ Note that a second substrate is not even introduced until a dependent claim, such as claim 18.


and circuits. A definition is added to the specification. This definition does not add new matter as it merely recites the functionality elsewhere described. This definition is not intended to preclude any claim scope to which claims 14 and 15 were previously entitled. It merely reinforces the point that references such as Iwasaki, directed to different problems and goals, are not apposite. Since, as has now been made clear, there is no change in claim scope intended by such an amendment and the amendment clearly is not necessary for distinguishing over the prior art reference, Applicants have made the suggested amendment and look forward to receiving a Notice of Allowance.

However, Applicants make this amendment without prejudice to their rights to pursue allowance of their claims, unamended, in a continuation application.

For each and all of the foregoing reasons, reconsideration and withdrawal of the rejection are requested.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to deposit account No. 23/2825.

Respectfully submitted,


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